

CLAIMS:

1. A composite form for stabilizing an earthen embankment, said form comprising:

(a) a floor section extending longitudinally rearwardly from a forward end of the floor section to a rearward end of the floor section, said floor section including:

(i) a plurality of horizontally spaced anchoring members formed integrally with said floor section and located proximate to the rearward end of said floor section; said anchoring members for holdingly engaging at least one geogrid anchoring rod; and,

(ii) a plurality of drainage openings extending through said floor section for permitting the drainage of moisture through said floor section;

(b) a face section formed integrally with and extending longitudinally at an angle upwardly from said forward end of said floor section to a top end of said face section, said face section comprising a first plurality of supporting ribs and a second plurality of supporting ribs, said second plurality of supporting ribs intersecting said first plurality of supporting ribs to define a plurality of regions bounded by said ribs;

(c) first coupling means integral with said form for coupling said form with a first like form extending above said form; and,

(d) second coupling means integral with said form for coupling said form with a second like form extending below said form.

2.. A form as defined in claim 1, wherein:

(a) said first coupling means comprises a plurality of horizontally spaced hooking members extending upwardly from said face section; and,

(b) said second coupling means comprises a plurality of horizontally spaced slots extending through said floor section, said slots being sized to receive and couple with cooperating hooking members extending upwardly from said second like form.

3. A form as defined in claim 1, further comprising a flange extending forwardly from said top end of said face section, and wherein:

5 (a) said first coupling means comprises a plurality of horizontally spaced hooking members extending forwardly from said forward end of said floor section; and,

(b) said second coupling means comprises a plurality of horizontally spaced slots extending through said flange, said slots being sized to receive and couple with cooperating hooking members extending forwardly from said second like form.

10 4. A form as defined in claim 2 or 3, wherein said slots are T-shaped slots.

5. A form as defined in claim 1, 2, 3 or 4, further including a plurality of hydroseeding screens formed integrally with said form, each one of said screens being formed within a unique one of said regions bounded by said supporting ribs.

15 6. A form as defined in claim 1, 2, 3, or 4, wherein each anchoring member comprises a boss, each boss including a hole extending through the boss, the said holes in all bosses being axially aligned.

7. A form as defined in claim 1, 2, 3 or 4, wherein said drainage openings comprise a plurality of elongated drainage slots.

20 8. A structure for stabilizing an earthen embankment, said structure comprising a composite form having:

(a) a floor section extending longitudinally rearwardly from a forward end of the floor section to a rearward end of the floor section, said floor section including:

25 (i) a plurality of horizontally spaced anchoring members formed integrally with said floor section and located proximate to the rearward end of said floor section; said anchoring members holdingly engaging at least one geogrid anchoring rod; and,

30 (ii) a plurality of drainage openings extending through said floor section for permitting the drainage of moisture through said floor section;

(b) a face section formed integrally with and extending longitudinally at an angle upwardly from said forward end of said floor section to a top end of said face section, said face section comprising a first plurality of supporting ribs and a second plurality of supporting ribs, said second plurality of supporting ribs intersecting said first plurality of supporting ribs to define a plurality of regions bounded by said ribs;

(c) first coupling means integral with said form for coupling said form with a first like form extending above said form; and,

(d) second coupling means integral with said form for coupling said form with a second like form extending below said form;

said structure further comprising a geogrid anchored to said floor section by said at least one geogrid anchoring rod.

9. A structure as defined in claim 8, said anchoring members holdingly engaging a pair of geogrid anchoring rods, one of said anchoring rods extending through said anchoring members, the other of said anchoring rods abutting against said anchoring members, an end portion of said geogrid being wrapped back and forth around said anchor rods so as to tighten thereon when said geogrid is pulled in longitudinal tension away from said floor section.

10. A form as defined in claim 8 or 9, wherein:

(a) said first coupling means comprises a plurality of horizontally spaced hooking members extending upwardly from said face section; and,

(b) said second coupling means comprises a plurality of horizontally spaced slots extending through said floor section, said slots being sized to receive and couple with cooperating hooking members extending upwardly from said second like form.

11. A form as defined in claim 8 or 9, further comprising a flange extending forwardly from said top end of said face section, and wherein:

(a) said first coupling means comprises a plurality of horizontally spaced hooking members extending forwardly from said forward end of said floor section; and,

- (b) said second coupling means comprises a plurality of horizontally spaced slots extending through said flange, said slots being sized to receive and couple with cooperating hooking members extending forwardly from said second like form.

- 5 12. A form as defined in claim 8, 9, 10 or 11, further including a plurality of hydroseeding screens formed integrally with said form, each one of said screens being formed within a unique one of said regions bounded by said supporting ribs.

AMENDED CLAIMS

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original claims 10-12 replaced by amended claims 10-18 (3 pages)]

5 (b) a face section formed integrally with and extending longitudinally at an angle upwardly from said forward end of said floor section to a top end of said face section, said face section comprising a first plurality of supporting ribs and a second plurality of supporting ribs, said second plurality of supporting ribs intersecting said first plurality of supporting ribs to define a plurality of regions bounded by said ribs;

(c) first coupling means integral with said form for coupling said form with a first like form extending above said form; and,

10 (d) second coupling means integral with said form for coupling said form with a second like form extending below said form;

said structure further comprising a geogrid anchored to said floor section by said at least one geogrid anchoring rod.

9. A structure as defined in claim 8, said anchoring members holdingly engaging a pair of geogrid anchoring rods, one of said anchoring rods extending through said
15 anchoring members, the other of said anchoring rods abutting against said anchoring members, an end portion of said geogrid being wrapped back and forth around said anchor rods so as to tighten thereon when said geogrid is pulled in longitudinal tension away from said floor section.

10. A structure as defined in claim 8 or 9, wherein:

20 (a) said first coupling means comprises a plurality of horizontally spaced hooking members extending upwardly from said face section; and,

(b) said second coupling means comprises a plurality of horizontally spaced slots extending through said floor section, said slots being sized to receive and couple with cooperating hooking members extending upwardly from
25 said second like form.

11. A structure as defined in claim 8 or 9, further comprising a flange extending forwardly from said top end of said face section, and wherein:

(a) said first coupling means comprises a plurality of horizontally spaced hooking members extending forwardly from said forward end of
30 said floor section; and,

- (b) said second coupling means comprises a plurality of horizontally spaced slots extending through said flange, said slots being sized to receive and couple with cooperating hooking members extending forwardly from said second like form.

5 12. A structure as defined in claim 8, 9, 10 or 11, further including a plurality of hydroseeding screens formed integrally with said form, each one of said screens being formed within a unique one of said regions bounded by said supporting ribs.

10 13. A form as defined in claim 1, 2, 3 or 4, further including a plurality of hydroseeding screens formed integrally with said form, each one of said screens being formed within a unique one of said regions bounded by said supporting ribs and having screen mesh size openings of not more than 3/8 inches by 3/8 inches.

14. A structure as defined in claim 8, 9, 10 or 11, further including a plurality of hydroseeding screens formed integrally with said form, each one of said screens being formed within a unique one of said regions bounded by said supporting ribs and having
15 screen mesh size openings of about 1/4 inch by 1/4 inch.

15. A method of stabilizing an earthen embankment at an embankment construction site, said method comprising:

(a) providing an earthen embankment stabilizing form, said form comprising:

20 (i) a floor section extending longitudinally rearwardly from a forward end of the floor section to a rearward end of the floor section;

(ii) a face section formed integrally with and extending longitudinally at an angle upwardly from said forward end of said floor section to a top end of said face section, said face section comprising a first plurality of supporting ribs and a second plurality of supporting ribs, said second plurality of supporting ribs intersecting said first plurality of supporting ribs to define a plurality of regions bounded by said ribs;

25 (iii) a plurality of hydroseeding screens formed integrally with said form, each one of said screens being formed within a unique one of said regions bounded by said supporting ribs;

30 (b) positioning said form at a predetermined location at said construction site;

- (c) when said form is so positioned, then anchoring a geogrid to the floor section of the form; and,
 - (d) hydrospraying said face section from the rear of said form with a seeded plant growth medium.
- 5 16. A method as defined in claim 15, wherein said face section is hydroseeded at a site remote from said construction site, and wherein said form is then transported to said construction site.
17. A method as defined in claim 15 or 16, wherein said screens have mesh size openings of not more than 3/8 inches by 3/8 inches.
- 10 18. A method as defined in claim 15 or 16, wherein said screens have mesh size openings of about 1/4 inch x 1/4 inch.